

Ventilator Technologies Sustain Critically Injured Patients



Johnson Space Center

*Impact Instrumentation Inc.
West Caldwell, New Jersey*

NASA Technology

- ◆ From its beginning, NASA has been concerned with providing effective remote medical care
- ◆ The Space Medicine Division Advanced Projects Group incorporates the expertise of clinicians and engineers to develop medical equipment capable of full automation or remote control

Partnership

- ◆ NASA and Impact Instrumentation Inc. entered into a Space Act Agreement, focusing on adapting ventilators for use in space
- ◆ The primary achievement of the partnership, the Model 745-AP ventilator, led Impact to develop closed-loop capabilities and run clinical trials of a ventilator that could operate itself



Benefits

- ◆ Impact used experience developing the Model 754-AP to produce the Uni-Vent 731 Series of ventilators, made for prehospital use and use in emergency rooms and intensive care units
- ◆ While fully automated equipment remains a future goal, the partnership resulted in smaller, smarter, more compact devices capable of remote control